IN THE CLAIMS

1. (Previously Presented) A method for measuring platelet function, comprising:

(a) selecting first and second samples comprising platelets in a liquid medium from a physiological source of said platelets wherein each of said first and second samples contains approximately the same number of platelets;

(b) counting the platelets contained in said first sample, to obtain a baseline count;

(c) mixing an amount of at least one platelet activation agonist with said second sample for a period of time effective to activate a maximum number of activatable platelets in said second sample;

(d) counting unactivated platelets remaining in said second sample after activation, to obtain a second count; and

(e) utilizing the difference between the baseline count and the second count as a measure of the activity of the platelets in the physiological source.

2. (Previously Presented) The method of Claim 1, wherein the platelets are counted in an electrical impedance cell counter.

3. (Previously Presented) The method of Claim 1, wherein the baseline count is carried out in the presence of EDTA as a blood preservative.

4. (Previously Presented) The method of Claim 1, wherein the second sample is essentially devoid of any agent which interferes with platelet function.

5. (Previously Presented) The method of Claim 1, wherein the platelet activation agonist is adenosine 5' di-phosphate, adenosine tri-phosphate, serotonin, thromboxane, collagen, epinephrine, thrombin, ristocetin or arachidonic acid.

6. (Previously Presented) The method of Claim 1, wherein the platelet activation agonist is adenosine 5' di-phosphate.

7. (Previously Presented) The method of Claim 1, wherein the platelets are human platelets.

8. (Previously Presented) The method of Claim 1, wherein the second sample contains a blood preservative which does not interfere with platelet function to any significant degree.

9-23. (Canceled)

24. (Previously Presented) The method of Claim 1, wherein the platelets are animal platelets.

25. (Previously Presented) The method of Claim 1, wherein the physiological source comprises diluted whole blood or platelet-containing plasma.

26. (Previously Presented) The method of Claim 1, wherein the first sample contains a blood preservative which does not interfere with platelet function to any significant degree.

27. (Currently Amended) The method of Claim 1, ~~further comprising at least one selected from the group consisting of diagnosin~~ wherein the sensitivity of the platelets in the physiological source is used to: diagnose platelet disfunction, ~~evaluating~~ evaluate the efficacy of antifibrinolytic ~~protectorte~~ protectorate, ~~evaluating~~ evaluate the efficacy of platelet ~~protectorte~~ protectorate, ~~evaluating~~ evaluate the efficacy of aprotinin, ~~evaluating~~ evaluate the efficacy of transexamic acid, ~~evaluating~~ evaluate the efficacy of DDAVP, ~~evaluating~~ evaluate the efficacy of amino caproic acid, ~~evaluating~~ evaluate the efficacy of aspirin, ~~measuring~~ measure IIb-IIIa anti-platelet compound, ~~diagnosing~~ diagnose congenital or acquired platelet disorder, ~~characterizing~~ characterize congenital or acquired platelet disorder, ~~diagnosing~~ diagnose storage pool disease, differentially ~~diagnosing~~ diagnose post preliminary by-pass surgery bleeding, [[and]] or a combination thereof.

28. (Previously Presented) The kit of Claim 21, wherein said second tube further comprises one or more selected from a group consisting of glass bead, glass bead agonist, platelet-attracting particle, and a combination thereof.